



IFW16

RAW SEQUENCE LISTING

DATE: 01/28/2004

PATENT APPLICATION: US/10/019,661

TIME: 08:11:50

Input Set : A:\2977-127.seq.txt

Output Set: N:\CRF4\01272004\J019661.raw

for

3 <110> APPLICANT: Zhang, Lian-Hui
 4 Dong, Yihu
 5 Xu, Jinling
 7 <120> TITLE OF INVENTION: Global Regulators of Bacterial Pathogenic Genes as Targets
 8 Engineering Disease Resistance
 10 <130> FILE REFERENCE: 2977-127
 12 <140> CURRENT APPLICATION NUMBER: US 10/019,661
 13 <141> CURRENT FILING DATE: 2002-04-29
 15 <150> PRIOR APPLICATION NUMBER: PCT/SG99/00128
 16 <151> PRIOR FILING DATE: 1999-11-17
 18 <150> PRIOR APPLICATION NUMBER: SG 9903146-0
 19 <151> PRIOR FILING DATE: 1999-07-02
 21 <160> NUMBER OF SEQ ID NOS: 4
 23 <170> SOFTWARE: PatentIn version 3.2
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 1222
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Bacillus sp.
 30 <400> SEQUENCE: 1

31	ctttactgta	ttgttttatt	caaaactaaa	tgtaaagggtg	gatacataat	gacagtaaag	60
33	aagcttttatt	tcgtcccagc	aggctcgttg	atgttggatc	attcgtctgt	taatagtaca	120
35	ttaacaccag	gagaattatt	agacttacccg	gtttgggtgtt	atcttttgga	gactgaagaa	180
37	ggacctattt	tagtagatac	aggtatgcc	gaaagtgcag	ttaataatga	aggctctttt	240
39	aacggtacat	ttgtcgaagg	gcagggttta	ccgaaaatga	ctgaagaaga	tagaatcgtg	300
41	aatattttta	aacgggttg	ttatgagccg	gaagaccttc	tttatattat	tagttctcac	360
43	ttgcattttg	atcatgcagg	aggaaatggc	gcttttataa	atacaccaat	cattgtacag	420
45	cgtgctgaat	atgaggcggc	gcagcatagc	gaagaatatt	tgaaagaatg	tatattgccg	480
47	aattttaaact	acaaaatcat	tgaagggtgat	tatgaagtcg	taccaggagt	tcaattattg	540
49	catacaccag	gccatactcc	agggcatcaa	tcgctattaa	ttgagacaga	aaaatccggg	600
51	cctgtattat	taacgattga	tgcatcgtat	acgaaagaga	attttgaaaa	tgaagtgcc	660
53	tttgccggat	ttgattcaga	attagcttta	tcttcaatta	aacgtttaaa	agaagtgggtg	720
55	atgaaagaga	agccgattgt	tttctttgga	catgatatag	agcaggaaag	gggatgtaaa	780
57	gtgttccttg	aatatatata	gtacaaaaag	tcattgagctt	attcgctcat	gactttttcg	840
59	tttaaatgat	ttttttaaat	aagttataaa	ctttttttaga	actatcttca	tttaattgat	900
61	agtacgtaag	gtttacatca	ttaggagtat	cttggtgagc	aatcatcact	tcgttactgt	960
63	gatgggtcaac	taccatattg	aaatattttt	tataagtccc	atcctcgaaa	gtaatccaca	1020
65	tatcacagtc	tattaaatct	gaccttctct	catctaattg	taattttcct	tttttgccg	1080
67	tatccatact	gttaaatgaat	gtttttaatt	catctgtttt	tgtgagaaag	atatactttt	1140
69	ttgttttaat	tgactcgaca	tgtatatctt	ttatttcttg	ttttcctaaa	aagacagggg	1200
71	gtcattttgg	gtctctttga	gt				1222
74	<210>	SEQ ID NO: 2					
75	<211>	LENGTH: 250					
76	<212>	TYPE: PRT					

ENTERED

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77 <213> ORGANISM: Bacillus sp.

79 <400> SEQUENCE: 2

81 Met Thr Val Lys Lys Leu Tyr Phe Val Pro Ala Gly Arg Cys Met Leu

82 1 5 10 15

85 Asp His Ser Ser Val Asn Ser Thr Leu Thr Pro Gly Glu Leu Asp

86 20 25 30

89 Leu Pro Val Trp Cys Tyr Leu Leu Glu Thr Glu Glu Gly Pro Ile Leu

90 35 40 45

93 Val Asp Thr Gly Met Pro Glu Ser Ala Val Asn Asn Glu Gly Leu Phe

94 50 55 60

97 Asn Gly Thr Phe Val Glu Gly Gln Val Leu Pro Lys Met Thr Glu Glu

98 65 70 75 80

101 Asp Arg Ile Val Asn Ile Leu Lys Arg Val Gly Tyr Glu Pro Glu Asp

102 85 90 95

105 Leu Leu Tyr Ile Ile Ser Ser His Leu His Phe Asp His Ala Gly Gly

106 100 105 110

109 Asn Gly Ala Phe Ile Asn Thr Pro Ile Ile Val Gln Arg Ala Glu Tyr

110 115 120 125

113 Glu Ala Ala Gln His Ser Glu Glu Tyr Leu Lys Glu Cys Ile Leu Pro

114 130 135 140

117 Asn Leu Asn Tyr Lys Ile Ile Glu Gly Asp Tyr Glu Val Val Pro Gly

118 145 150 155 160

121 Val Gln Leu Leu His Thr Pro Gly His Thr Pro Gly His Gln Ser Leu

122 165 170 175

125 Leu Ile Glu Thr Glu Lys Ser Gly Pro Val Leu Leu Thr Ile Asp Ala

126 180 185 190

129 Ser Tyr Thr Lys Glu Asn Phe Glu Asn Glu Val Pro Phe Ala Gly Phe

130 195 200 205

133 Asp Ser Glu Leu Ala Leu Ser Ser Ile Lys Arg Leu Lys Glu Val Val

134 210 215 220

137 Met Lys Glu Lys Pro Ile Val Phe Phe Gly His Asp Ile Glu Gln Glu

138 225 230 235 240

141 Arg Gly Cys Lys Val Phe Pro Glu Tyr Ile

142 245 250

145 <210> SEQ ID NO: 3

146 <211> LENGTH: 12

147 <212> TYPE: PRT

148 <213> ORGANISM: Bacillus sp.

150 <400> SEQUENCE: 3

152 Ile Leu Val Asp Thr Gly Met Pro Glu Ser Ala Val

153 1 5 10

156 <210> SEQ ID NO: 4

157 <211> LENGTH: 12

158 <212> TYPE: PRT

159 <213> ORGANISM: artificial

161 <220> FEATURE:

162 <223> OTHER INFORMATION: consensus aspartyl proteases active site motif

165 <220> FEATURE:

166 <221> NAME/KEY: MISC_FEATURE

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Input Set : A:\2977-127.seq.txt

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```

167 <222> LOCATION: (1)..(1)
168 <223> OTHER INFORMATION: X= LIVMFGA or C
170 <220> FEATURE:
171 <221> NAME/KEY: MISC_FEATURE
172 <222> LOCATION: (2)..(2)
173 <223> OTHER INFORMATION: X= LIVMTAD or N
175 <220> FEATURE:
176 <221> NAME/KEY: MISC_FEATURE
177 <222> LOCATION: (3)..(3)
178 <223> OTHER INFORMATION: X= LIVFS or A
180 <220> FEATURE:
181 <221> NAME/KEY: MISC_FEATURE
182 <222> LOCATION: (5)..(5)
183 <223> OTHER INFORMATION: X= S or T
185 <220> FEATURE:
186 <221> NAME/KEY: MISC_FEATURE
187 <222> LOCATION: (7)..(7)
188 <223> OTHER INFORMATION: X= STA or V
190 <220> FEATURE:
191 <221> NAME/KEY: MISC_FEATURE
192 <222> LOCATION: (8)..(8)
193 <223> OTHER INFORMATION: X= STAPDEN or Q
195 <220> FEATURE:
196 <221> NAME/KEY: MISC_FEATURE
197 <222> LOCATION: (9)..(9)
198 <223> OTHER INFORMATION: X= any amino acid
200 <220> FEATURE:
201 <221> NAME/KEY: MISC_FEATURE
202 <222> LOCATION: (10)..(10)
203 <223> OTHER INFORMATION: X= LIVMFSTN or C
205 <220> FEATURE:
206 <221> NAME/KEY: MISC_FEATURE
207 <222> LOCATION: (11)..(11)
208 <223> OTHER INFORMATION: X= any amino acid
210 <220> FEATURE:
211 <221> NAME/KEY: MISC_FEATURE
212 <222> LOCATION: (12)..(12)
213 <223> OTHER INFORMATION: X= LIVMFGT or A
215 <400> SEQUENCE: 4
W--> 217 Xaa Xaa Xaa Asp Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa
      218 1          5          10

```

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/019,661

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TIME: 08:11:51

Input Set : A:\2977-127.seq.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 1, 2, 3, 5, 7, 8, 9, 10, 11, 12

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:4

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/019,661

DATE: 01/28/2004

TIME: 08:11:51

Input Set : A:\2977-127.seq.txt

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L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0